CLAIMS

What is claimed is:

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1. A method for obtaining a current value of a Management Information Base (MIB) variable stored in a network device in a network, the method comprising the steps of:

receiving a connection of a Web browser to the network device;

receiving an HTTP request message from the browser to obtain the current value of the MIB variable;

receiving the current value of the MIB variable from the MIB of the network device; and

communicating the current value of the MIB variable to the browser using an HTTP reply message.

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2. The method of claim 1, further comprising the steps of:

creating and storing a MIB object tree in a memory of the network device;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

communicating the electronic document to the Web browser.

3. The method of claim 1, wherein the step of receiving the current value of the MIB variable from the MIB of the network device includes the steps of creating and storing a MIB object tree in a memory of the network device; obtaining the MIB variable from the MIB object tree in the memory of the network device.

4. The method of claim 1, further comprising the steps of:

creating and storing a MIB object tree in a memory of the network device;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

receiving a user selection of one of the MIB variables based on the electronic document;

wherein the step of receiving the current value of the MIB variable from the MIB of the network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network device.

5. The method of claim 1, further comprising the steps of:

receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and

communicating the SNMP query to an SNMP daemon of the network device.

6. The method of claim 1, further comprising the steps of:

communicating the current value of the MIB variable to the HTTP-SNMP interface;

creating and storing an HTML page that contains the current value of the MIB variable; and

sending the HTML page to an HTML daemon of the network device.

7. The method of claim 1, further comprising the step of creating and storing an executable software element in association with the Web browser, wherein the executable software element is configured for packaging an SNMP query into the request from the Web browser.

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8. The method of claim 1, wherein the step of receiving a request from the Web browser to obtain the current value of the MIB variable includes the step of unpackaging an SNMP query that is packaged in the request from the Web browser to identify the MIB variable.

9. The method of claim 8, further comprising the step of sending the SNMP query to an SNMP daemon of the network device.

10. The method of claim 8, wherein the step of returning the current value of the MIB variable to the Web browser includes the step of repackaging the current value of the MIB variable into an HTTP reply message.

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11. A network device, comprising:

a processor;

a Management Information Base (MIB) logically accessible by the processor and comprising one or more stored values of MIB variables;

a Simple Network Management Protocol (SNMP) daemon executed by the processor;

a Hypertext Transfer Protocol (HTTP) daemon executed by the processor;

stored instructions for obtaining a current value of a Management Information Base (MIB) variable stored in the network device which, when executed by the processor, cause the processor to carry out the steps of:

receiving a connection of a Web browser at the HTTP daemon;

receiving an HTTP request message from the browser to obtain the current value of one of the MIB variables;

receiving the current value of the MIB variable from the MIB of the network device using the SNMP daemon; and

communicating the current value of the MIB variable to the browser using an HTTP reply message.

12. The network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree in a memory of the network device;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

communicating the electronic document to the Web browser.

13. The network device of claim 11, wherein the step of receiving the current value of the MIB variable from the MIB of the network device includes the steps of creating and storing a MIB object tree in a memory of the network device; obtaining the MIB variable from the MIB object tree in the memory of the network device.

14. The network device of claim 11, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree in a memory of the network device;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

receiving a user selection of one of the MIB variables based on the electronic document;

wherein the step of receiving the current value of the MIB variable from the MIB of the network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network device.

15. The network device of claim 11, further comprising an HTTP-SNMP interface which, when executed by the processor, causes the processor to carry out the steps of:

receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and

communicating the SNMP query to an SNMP daemon of the network device.

16. The network device of claim 11, further comprising the steps of:

communicating the current value of the MIB variable to the HTTP-SNMP interface;

creating and storing an HTML page that contains the current value of the MIB variable; and

sending the HTML page to the HTML daemon.

17. A computer-readable medium carrying one or more sequences of one or more instructions for obtaining a current value of a Management Information Base (MIB) variable stored in a network device in a network, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

receiving a connection of a Web browser to the network device;

receiving an HTTP request message from the browser to obtain the current value of the MIB variable;

receiving the current value of the MIB variable from the MIB of the network device; and

communicating the current value of the MIB variable to the browser using an HTTP reply message.

18. The computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree;

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creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

communicating the electronic document to the Web browser.

19. The computer-readable medium as recited in claim 17, wherein receiving the current value of the MIB variable from the MIB of the network device includes the steps of creating and storing a MIB object tree in a memory of the network device; obtaining the MIB variable from the MIB object tree in the memory of the network device.

20. The computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

creating and storing a MIB object tree in a memory of the network device;

creating an electronic document that contains a representation of one or more MIB variables of the MIB object tree;

receiving a user selection of one of the MIB variables based on the electronic document;

wherein receiving the current value of the MIB variable from the MIB of the network device includes the step of obtaining the MIB variable that is identified in the user selection from the MIB object tree in the memory of the network device.

21. The computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

receiving the HTTP request message to obtain the current value of the MIB variable at an HTTP-SNMP interface;

creating an SNMP query that requests a current value of the MIB variable based on the HTTP request message; and

communicating the SNMP query to an SNMP daemon of the network device.

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22. The computer-readable medium as recited in claim 17, wherein the instructions further cause the processor to carry out the steps of:

communicating the current value of the MIB variable to the HTTP-SNMP interface;

creating and storing an HTML page that contains the current value of the MIB variable; and

sending the HTML page to an HTML daemon of the network device.

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23. An HTTP browser program including a plug-in executable software element configured for obtaining a current value of a Management Information Base (MIB) variable stored in a network device in a network and which, when executed by a processor that executes the browser, causes the processor to carry out the steps of:

connecting the browser to the network device;

communicating an HTTP request message from the browser to the network device, wherein the HTTP request message comprises an SNMP query that requests a current value of the MIB variable;

receiving the current value of the MIB variable from the MIB of the network device in an HTTP reply message; and

displaying the current value of the MIB variable using the browser.

24. An applet executable in a browser program and configured for obtaining a current value of a Management Information Base (MIB) variable stored in a network device in a network and which, when executed by the browser, causes the browser to carry out the steps of:

connecting the browser to the network device;

communicating an HTTP request message from the browser to the network device, wherein the HTTP request message comprises an SNMP query that requests a current value of the MIB variable;

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receiving the current value of the MIB variable from the MIB of the network device in an HTTP reply message; and

displaying the current value of the MIB variable using the browser.

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